Meningioma Masquerading as Subacute Extradural Hematoma
Dr. Sreedharala Srinivasa Satyanarayana¹, Dr. T. Satish Kumar², Dr. Kursa Gopi Krishna³
¹Incharge Professor of Neurosurgery, Gandhi Medical College, Secunderabad, India
²Junior Resident in Neurosurgery, Gandhi Medical College, Secunderabad, India
³Senior Resident in Neurosurgery Gandhi Medical College, Secunderabad, India

Case Report

Abstract: An unknown male person of about 70 years old was found unconscious on road side. CT scan of brain showed a slightly hyperdense biconvex extra axial lesion in left fronto-parietal region, suggestive of Subacute Extradural haematoma. Intraoperatively it was found to be a mass lesion for which excision was done. Histopathology report was Transitional Meningioma (WHO Grade-I). This case illustrates a rare presentation of Meningioma radiologically mimicking as subacute extradural haematoma leading to erroneous diagnosis.

Keywords: Meningioma, Subacute, Extradural, hemorrhage, haematoma.

INTRODUCTION
Meningioma’s are the most common benign intracranial tumors and make up 13-25% of all primary intracranial tumors. Most of the individuals with meningioma are present with symptoms such as headache, dizziness, seizures or gradual progression of neurological deficits [1]. Two-3% have asymptomatic Meningioma’s. Presentation of intracranial hemorrhage is rare in meningiomas, approximately 1.3-2.4%. [2]. on plain CT scan of brain, meningioma’s are is dense to slightly hyper dense compared with adjacent brain parenchyma. We present a rare case of meningioma radiologically mimicking as subacute extradural hematoma, leading to a diagnostic dilemma.

CASE REPORT
An unknown male person aged about 70 years was found unconscious on road side, and he was brought by police to Emergency department with the suspicion of road traffic accident.

At admission his Glasgow coma scale (GCS) was E1V1M5. Computed tomography (CT) scan of brain was done, which revealed slightly hyperdense, biconvex shaped extra-axial lesion, of 35ml volume, in left fronto-parietal region (figure 1). Based on history and CT scan features, a diagnosis of Sub-acute extradural hematoma was considered.

A craniotomy was performed to evacuate the hematoma. On removing the bone flap, extradural hematoma was not found. There was a suspicion of subdural lesion or haematoma hence dura was opened. After opening the dura, a greyish brown soft to firm mass with dural attachment and compressing the brain parenchyma was seen (figure-2). Simpson grade-IV excision of mass was done and sent for histopathological examination. Post-operative CT scans (figure-5) and MRI of Brain was done. Post-operative MRI showed a residual tumour of 0.5-1cm size close to frontal bone which is isointense on T1(figure-6) and hypointense on T2 weighted images (figure 8) and “dural tail” sign was noted. Histopathological examination of tumour confirmed the mass as Transitional Meningioma (WHO Grade-I)(figure-4). The patient was discharged 10 days later and he had lost for follow-up.
Fig-1: Pre-operative CT Scan of brain

Fig-2: Intra-operative picture

Fig-3: Gross specimen, Cut section, 5x5cm
Fig-4: Histopathological picture, showing features of meningoethelial (shown as bold arrow) and fibroblastic features (pointed as)

Fig-5: Post-operative CT Scan of brain

Fig-6: Post-operative T1 weighted image, showing isointense residual tumour
DISCUSSION

Meningiomas are the most common benign intracranial tumours and make up 13-26% of all primary intracranial neoplasms [3]. The incidence is six per 100000 (highest after 50 years of age) and female to male ratio is 2:1. Two-3% of populations have asymptomatic meningiomas and 8% have multiple meningioma’s [4].

Meningiomas usually present with symptoms such as headache, dizziness, seizures or gradual progression of neurological deficits [1]. Depending on the tumor location, focal neurological deficits, may accompany these symptoms with tumor growth. Meningioma’s can rarely present as Foster Kennedy syndrome [5].

Meningiomas are usually globular, encapsulated tumours. They are usually attached to the dura and compress the underlying brain without invading it [6].

Transitional meningioma’s are also called as mixed meningiomas. WHO (Grade-I)[15]. Microscopically they represent a combination of the meningothelial and fibroblastic types. Characteristically cellular whorls are seen, separated by elongated spindle cells (figure-4).

Extradural hematoma is usually a consequence of head injury and account for 5-15% of fatal head injuries. EDH can be classified by their radiological progression into 3 appearances:

Type I (acute or hyperacute—day 1, associated with “swirl” of unclotted blood), CT density relative to brain—hyperdense [7, 8].
Type II (subacute—days 2-4, solid), CT density relative to brain—slightly hyper dense to is dense [7, 8].

Intracranial hemorrhage associated with brain tumors occurs in 1.7-9.6% of all cases and makes 0.9-10.2% of all intracranial hemorrhages [2]. Meningioma’s can sometimes present with intracranial hemorrhage and as intratumoural hemorrhage [9]. Sometimes tumors of skull can masquerade as EDH [14]. Chronic epidural hematoma cans mimic as meningioma [16]. Primary Dural lymphoma cans mimic as chronic epidural hematoma [17].

CONCLUSION

The location and growth pattern of Meningioma’s can vary substantially and potentially be misdiagnosed [10]. Meningioma’s can also be confused with dural metastasis and chronic SDH [11]. In some rare cases, these tumors could also cause intracerebral hemorrhage and chronic SDH and conceal themselves around or inside the hematoma [12].

In our case, the unknown history and the acute presentation of patient suggested an intracranial injury secondary to trauma. When the plain CT scan was done, the radiological findings of extradural haematoma was observed, a diagnosis of subacute extradural haematoma was considered. In view of poor GCS and need for emergency surgery, a contrast CT scan or MRI could not be done. This case report suggests that one should keep in mind the possibility of an alternative lesion, as a differential diagnosis, when the radiological appearances are deceptive.

REFERENCES